



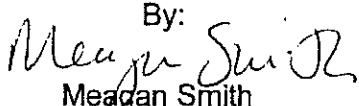
Alexander
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Illinois River Watershed Phosphorus Mass Balance Study

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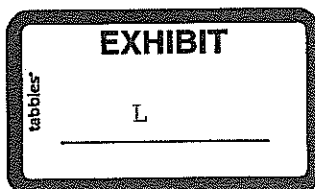


Table 4. Phosphorus contributing livestock populations in the IRW

Livestock Populations in the Illinois River Watershed								
Year	Broilers	Layers	Pullets	Turkeys	Total Poultry	Swine	Dairy Cattle	Beef Cows & Heifers that Calved
1949	11,924,434	^a	^a	38,497	11,962,932	79,556	29,478	10,379
1954	18,617,043	^a	^a	302,795	18,919,838	38,281	29,877	19,842
1959	35,685,225	^a	^a	489,136	36,174,360	50,939	21,253	29,742
1964	60,681,482	1,759,742	^a	^a	62,441,223	28,423	14,886	50,503
1969	75,718,474	6,687,861	^a	^a	82,406,334	44,297	11,674	62,321
1974	80,779,485	3,881,138	^a	^b	84,660,623	57,064	9,302	86,725
1978	87,085,705	6,358,778	4,041,266	2,274,966	99,760,715	212,851	11,771	79,062
1982	91,645,666	7,730,130	3,951,899	2,899,320	106,227,014	284,402	15,620	83,235
1987	100,090,686	9,386,334	4,354,641	5,443,358	119,275,019	484,617	13,095	81,212
1992	124,834,505	7,550,895	4,476,492	4,013,895	140,875,787	324,755	12,148	85,408
1997	126,788,271	5,895,940	3,503,572	4,780,619	140,968,402	299,286	9,958	97,440
2002	139,700,237	4,870,617	3,186,207	4,024,094	151,781,155	208,243	10,280	101,367

^aNo information listed in Ag Census.^bData listed as not available in Ag Census.

Table 5 presents the same livestock numbers in terms of animal units (AUs), or 1000 lb of animal liveweight. Due to the vast size difference of the animals listed, this allows for a better comparison of the "amount" of each animal type in the watershed. Average liveweights at market were used to determine the AUs. The average liveweights for broilers and turkeys have increased greatly over the past several decades. That increase was accounted for by using their liveweights at market taken from the Poultry Yearbook (ERS, 2006) for years 1964 through 2002. Prior to 1964, the liveweights for broilers and turkeys were estimated using a linear regression. The liveweights for broilers and turkeys are provided in Table 6. The average liveweights at market used to calculate the AUs for the remaining animals are 1375 lb for dairy cattle, 963 lb for beef cows and heifers that calved, 155 lb for swine (ASAE, 2005), 4 lb for layers (ASAE, 2003), and assuming a layer is a full-grown pullet, 2 lb for pullets. These liveweights at market are current estimates and are used to calculate both current and historical AUs in the watershed.



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